## ABSTRACT

The present invention provides compositions containing a mixture of cholesterol sulfate and an exfoliant. The exfoliant can be N-acetyl-D-glucosamine, N-acetylgalactosamine, or a combination thereof. The combination of the cholesterol sulfate with the exfoliant surprisingly enhances the skin barrier even though the activity of each of the components is opposite the other. In addition, because of the ability to enhance or repair the skin barrier function, methods of improving or maintaining a healthy skin barrier are included in the present invention by applying to the skin an effective amount of the mixture of cholesterol sulfate with the exfoliant. The mixture can also be useful in treating or preventing damage to the skin, where the damage is caused by a compromised skin barrier function. As a result of improving the skin barrier function with the combination of cholesterol sulfate and the exfoliant, the appearance of lines and wrinkles is generally reduced; rough and dry skin conditions are also improved.